National Park Service
U.S. Department of the Interior

Big South Fork National River and Recreation Area
Oneida, Tennessee

Big South Fork NRRA News Release

For Immediate Release
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PUBLIC INPUT SOUGHT FOR MANAGING FIELDS IN BIG SOUTH FORK

The National Park Service has released a Public Scoping Document to solicit comments on a proposal for managing fields in Big South Fork National River and Recreation Area. The document describes nine proposed field uses and conditions that are intended to restore natural communities, preserve cultural resources, and enrich recreational opportunities.

The purpose of the Public Scoping is to invite participation from all interested members of the public, all federal, state, and local governments that are interested in fields' management at Big South Fork NRRA. Public scoping is intended to identify:

- The potential effect of the proposed action on visitor's experiences and satisfaction.
- A range of management alternatives that should be evaluated for inclusion in the Field Management Plan,
- Significant environmental, social, and economic issues related to the proposed action that should be addressed in the associated Environmental Assessment.

Copies of the Public Scoping Document are available on the internet by clicking the new web based Planning Environment and Public Comment system (PEPC) link **http://parkplanning.nps.gov** and then selecting Big South Fork NRRA from the drop down menu. Copies may also be obtained by contacting Big South Fork NRRA Headquarters at (423) 569-9778, or by writing Superintendent, Big South Fork, 4564 Leatherwood Road, Oneida, Tennessee, 37841.

Public input on fields' management should be emailed to biso_information@nps.gov, or mailed to Big South Fork NRRA Headquarters, 4564 Leatherwood Road, Oneida, Tennessee, 37841. Any questions may be directed to Christopher J. Stubbs at (423) 569-2404 ext. 231. All comments must be received by May 14, 2004.

A PROPOSAL for MANAGING FIELDS at BIG SOUTH FORK NRRA

Purpose

Big South Fork National River and Recreation Area (National Area) contains nearly 100 fields, totaling over 850 acres in area. Although this represents a very small part (less than one percent) of the National Area, fields are important components of its natural and cultural landscape. Fields and natural open areas are characterized by values that are distinct from those of the surrounding forest. However, in their current condition, many of the fields are not beneficial to wildlife or native plants and are not fulfilling visitor's needs or expectations. The National Area is committed to managing these fields to maintain or enhance their associated aesthetic, historic, conservation, and recreation values.

Currently, the National Area lacks a consolidated and formal strategy for field management. As a first step toward creating a comprehensive framework for managing fields, we invite public comments on management alternatives currently under consideration. The ultimate outcome of this process should be a long-term field management strategy that perpetuates natural communities, preserves cultural resources, and enriches recreational opportunities.

Background

Forest vegetation dominates the Big South Fork landscape. In contrast, open areas constitute a minor part of the National Area. Evidence suggests that natural meadows, open pine-oak woodlands, and sandstone glades were previously more extensive on the Cumberland Plateau. Fire suppression is often cited as a cause for decline of these open habitat types. Old fields, although not natural features, have helped support open habitat plants and wildlife as natural openings have declined. However, Big South Fork's fields are also rapidly changing. Fields that were regularly plowed, grazed, or harvested prior to establishment of the National Area are no longer being actively managed. Active management, such as bush-hogging or burning, is required to maintain the fields in an open and treeless condition. Without these management activities, woody plants are colonizing old fields. Over time, these fields will become overgrown with shrubs and trees and ultimately become forests. This process, although natural, is inconsistent with some other park objectives, including protection of wildlife, rare plants, and cultural landscapes.

The effects of this change are already apparent on some wildlife species that depend on open or edge habitat. For example, bird species exhibiting declining population sizes or nearly absent from the National Area include the Northern Bobwhite, Loggerhead Shrike, Northern Mockingbird, Blue Grosbeak, Brown Thrasher, Prairie Warbler, Common Yellowthroat, Yellow-breasted Chat, and Field Sparrow.

Encroaching woody vegetation also threatens to change the character and diminish the historical accuracy of remaining homesteads and other cultural landscapes. Eight fields are components of officially designated cultural landscapes at Big South Fork. National Park Service policies require that the National Area maintains the integrity and character of official cultural landscapes by arresting or retarding deterioration caused by natural forces and normal use. These guidelines pertain to open fields as well as buildings and other structures. Therefore, maintenance of official cultural landscapes should involve control of encroaching woody vegetation into these specially designated fields.

Another serious problem with the National Area's existing fields is the presence of exotic plant species. Many of the plants growing in the National Area's fields are of European or Asian origin. Others are cultivated non-native species that were planted for livestock forage. Common examples of non-native field plants are tall fescue (e.g., Kentucky-31), Chinese lespedeza, Johnsongrass, Queen Anne's lace, ox-eye daisy, dandelion, yellow rocket, field bindweed, bittersweet nightshade, red clover, timothy, common teasel, and common cocklebur. Exotic invasive shrubs, although not abundant in all fields, commonly include multiflora rose, privet, and autumn olive. Invasive tree species, such as tree-of-heaven, have quickly gained a foothold in old fields. Fields, roads, trails, and other disturbed areas are often source areas for exotic plants. From there, exotic plants can migrate into previously stable communities where they displace native plants and reduce wildlife habitat.

Non-native tall fescue dominates most of the National Area's fields. Fescue-dominated fields do not share the same physical characteristics as native-grass meadows and typically do not satisfy the biological needs of the target plants and animals. For example, fescue tends to form a tight sod that restricts the tunneling and burrowing habits of small mammals and birds. Fescue does not provide overhead protection from avian predators, space for catching insects, bare ground for finding seeds, or sites for nesting. Fescue is also host to a toxic fungus that can affect the health and reproductive success of some wildlife.

Proposed Management Alternatives

The National Park Service is considering assigning a specific use or condition to each of the National Area's fields. Nine categories have been identified. Many of these categories represent existing field uses and conditions (i.e., agricultural lease, group camping, horse paddock, timothy mix, turf grass). Other categories would be new field uses and conditions (i.e., native-grass meadow, grassy pine savannah, mixed-hardwood forest, shrub-scrub). A management strategy that incorporates a mixture of these categories is most likely to provide the many benefits and values desired in the National Area.

Ø *Agricultural Lease*
Eight fields are currently leased to private operators for growing row crops or hay. Field maintenance is the responsibility of the lessee and includes annual fertilizing and harvesting. Leases provide a small amount of revenue to the National Area.

Ø *Mixed-hardwood Forest*
Fields would be treated for invasive exotic plant species, but otherwise these fields would not be maintained with fire or bush-hogging. In the absence of disturbance, fields would eventually return to forest. Virginia and shortleaf pine would continue to invade most fields. Ultimately oak-pine or mixed-hardwood forest types would replace the early successional vegetation. Exotic species are generally present at lower abundance in mature forests than in early successional communities. Mature forest is consistent with many other values such as recreation and aesthetics. There are valid arguments for allowing many of the National Area's fields to regenerate into forest, thereby reducing forest fragmentation and long-term maintenance costs. Once established, there is no maintenance required to support this vegetation type, although prescribed fire may play a role in affecting species composition and managing hazard fuels.

Ø *Group Camping*
These sites would be used by large groups participating in sanctioned events, such as group horse rides and Boy Scout campouts. Fescue is a hardy grass that resists impacts from horses and vehicle traffic; therefore, conversion to other vegetation types may be undesirable in this situation. Regular bush-hogging and/or periodic prescribed fire would be used to maintain a low-growth condition.

Ø *Horse Paddock*
Two fields are currently fenced for horse pasture. Regular rotation of grazing animals is encouraged to prevent resource damage. Rehabilitation of over-grazed pastures may be periodically required.

Ø *Native-grass Meadow*
Meadow is a general descriptor of grassy treeless openings. Major native grassy components of a meadow could include little bluestem, big bluestem, grama grass, Indian grass, purple love grass, poverty grass, assorted panic grasses, rushes, and sedges. The exact mixture will depend largely on soil moisture, acidity, and frequency of fire. Native forbs may include asters, goldenrods, blazing stars, joe-pye weeds, thoroughworts, lespedezas, buttercups, milkweeds, fleabanes, ironweeds, lobelias, mountain mints, St. John's-worts, thistles, tick trefoils, violets, and many others. Meadows would require periodic fire or a mixed fire and mowing regime in order to avoid woody plant encroachment.

Many of the National Area's fields would require treatment for exotic plants. Some exotic plants, such as Chinese lespedeza, are encouraged by fire and should be eradicated with herbicides before fire is introduced. Treating multiflora rose, autumn olive, tree-of-heaven, white poplar, mimosa, and other exotic woody plants before burning will also reduce the likelihood of post-fire regeneration of those species.

A mix of local genotype grasses and forbs would be used to establish the native meadows. Indian grass and big bluestem seed-source plots already exist within the National Area. Local seeds of other grasses and forbs would be collected and planted in seed plots to be harvested and planted during the establishment phase of some meadows. Not all meadows would be planted. Instead, we would rely on natural seed dispersal from nearby sources such as the transmission line right-of-way and previously established meadows.

Replacing fescue-dominated fields with native-grass meadows would contribute to species and habitat diversity. Exotic plant species would be present but not abundant. This community type is consistent with other values, such as hunting, wildlife viewing, and aesthetics. Generally, costs associated with maintaining native-grass meadows are low compared to the frequent bush-hogging and exotic species control required for maintaining fescue-dominated fields.

Ø *Grassy Pine Savannah*

Savannahs are open grassy habitats with scattered trees or clumps of trees. Shortleaf pine (*Pinus echinata*) is the major tree component of savannahs in the National Area. Generally, oaks are secondary components, although is some cases may exhibit greater dominance than pine. Dominant oak species may include post oak (*Quercus stellata*), blackjack oak (*Q. marilandica*), scarlet oak (*Q. coccinea*), black oak (*Q. velutina*), southern red oak (*Q. falcata*) and chestnut oak (*Q. prinus*). Allegheny chinkapin (*Castanea pumila*), black huckleberry (*Gaylussacia bacatta*), box huckleberry (*Gaylussacia brachycera*), farkleberry (Vaccinium arboretum), and mountain laurel (*Kalmia latifolia*) are among the shrubs that may be present in varying abundance depending on the frequency and intensity of fire.

The fire practices of Native Americans and early settlers may have maintained pine-oak savannahs through frequent understory burns. The appropriate fire regime for restoring this system is not well documented; therefore, we would adopt an adaptive management approach until we identified a successful strategy. A high fire frequency (1-6 yrs) is necessary to reduce hardwood competition and maintain an open grassy understory. We would begin field conversion by using prescribed fire at a 2-yr interval to help eliminate fescue and other exotic plant species. Herbicide applications would facilitate conversion. Eventually, we would plant shortleaf pine seedlings in a scattered-patchy distribution. Subsequently, we would burn at the appropriate interval to maintain an open grassy understory.

Ø *Shrub-Scrub*

Shrub-scrub describes a mostly treeless habitat type where shrubs are the predominant vegetation cover. Although this habitat currently exists in the Natural Area, many of the shrubs are exotic species (e.g., autumn olive and multiflora rose). The desired habitat would instead include native shrubs, sub-trees, and tree saplings: New Jersey tea (*Ceanothus americana*), redbud (*Cercis canadensis*), flowering dogwood (*Cornus florida*), American hazelnut (*Corylus americana*), hawthorns (*Crataegus* species), persimmon (*Diospyros virginiana*), southern crab apple (*Malus angustifolia*), wild plum (*Pyrus americana*), black cherry (*Prunus serotina*), blackjack oak (*Quercus marilandica*), post oak (*Quercus stellata*), sumacs (*Rhus* species), Carolina rose (*Rosa carolina*), blackberries (*Rubus* species), sassafras (*Sassafras albidum*), coralberry (*Symphoricarpos orbiculatus*), arrow wood (*Viburnum dentatum*) and others. Maintenance of this community type would involve periodic exotic plant control using herbicides. Major disturbance in the form of mechanical clearing or prescribed fire would be necessary every 5-8 years to prevent succession to forest. Shrub-scrub sites would be treated on a rotation so that any point in time there is a gradient of successional stages, rather than having all sites in the same condition.

Ø *Timothy Mix*

Three fields are currently planted with a timothy and orchard grass hay mixture. Hay is used to support the Big South Fork horse program and for erosion control.

Ø *Turf grass*

Existing sites are planted with lawn grasses and regularly mowed for a manicured appearance. Turf-grass zones appear in developed areas, such as the Headquarters complex and Bandy Creek Visitor Center facilities. These sites are maintained for aesthetic and recreation values. Maintenance of turf-grass zones is to be addressed in the BISO Mowing Plan, which will be developed in the near future.